## FY 2001 MILITARY CONSTRUCTION, DEFNESE-WIDE (\$ in Thousands)

| State/Agency/Installation/Project   | Authorization<br><u>Request</u> | Approp. Request | New/<br>Current<br><u>Mission</u> | Page<br><u>No.</u> |
|-------------------------------------|---------------------------------|-----------------|-----------------------------------|--------------------|
| Maryland                            |                                 |                 |                                   |                    |
| Fort Meade                          |                                 |                 |                                   |                    |
| Critical Utility Control (Phase II) | 769                             | 769             | C                                 | 135                |
| Route 32                            | 3,459                           | 3,459           | С                                 | 138                |
| Total                               | 4,228                           | 4,228           |                                   |                    |

| 1. Component NSA/CSS   | FY 2001 MILITARY CONSTRUCTION PROJECT DATA |                  |                   |            | 2. DATE       |
|--|--|------------------|-------------------|------------|---------------|
| Defense  |  |                  |                   |            | February 2000 |
| 3. INSTALLATION AND LOCATION 4. PROJECT TITLE                    |  |                  |                   |            |               |
| Fort George G. Meade, Maryland Critical Utility Control Phase II |  |                  |                   |            | Phase II      |
| 5 PROGRAM ELEM   | MENT                                       | 6. CATEGORY CODE | 7. PROJECT NUMBER | 8. PROJECT | COST (\$000)  |
| 0301011  | 1G   | 821              | 4004              |            | 769           |

9. COST ESTIMATES

| 9. COST ESTIMATES                |     |          |           |              |  |  |
|----------------------------------|-----|----------|-----------|--------------|--|--|
| ITEM                             | U/M | QUANTITY | UNIT COST | COST (\$000) |  |  |
| Primary Facility                 |     |          |           | 420          |  |  |
| Software, Integration & Hardware | LS  |          |           | (420)        |  |  |
| Supporting Facilities            |     |          |           | 349          |  |  |
| Installation                     | LS  |          |           | (264)        |  |  |
| System Start-up and Training     | LS  |          |           | (85)         |  |  |
| Subtotal                         |     |          |           | 769          |  |  |
| Total Contract Cost              |     |          |           | 769          |  |  |
| Total Request                    |     |          |           | 769          |  |  |
|                                  |     |          |           |              |  |  |
|                                  |     |          |           |              |  |  |

## 10. DESCRIPTION OF PROPOSED CONSTRUCTION

The Critical Utility Control Phase II project will extend the monitoring and control capabilities of the supervisory control and data acquisition system (SCADA) provided by the Critical Substation Control (CSC) and Critical Utilities Control Phase 1 (CUC1) projects to additional power systems which support critical mission functions within the Headquarters complex. The project will include the capability to monitor and control low voltage substations that directly support key Agency operational areas in the HQ, Tordella, OPS1, 2A and 2B buildings. A load shedding scheme shall be provided to allow site-generated power to be distributed to the most critical locations should off site power be lost. The system will include redundant hardware and communications links in order to maximize system availability. Integration with existing SCADA and energy monitoring and control system (EMCS) will also be included.

Critical Utility Control Phase II will be constructed within existing building spaces. The system will be comprised of hardware, software, integrated systems, graphic computer screens, locally installed interface devices, power meters, communication hubs, fiber optic cable, factory acceptance testing, hardware and software documentation, training, and miscellaneous supporting system components.

| 1. Component NSA/CSS | FY 2001 MILITARY CONSTRUCTION PROJECT DATA | A     | 2. Date       |
|----------------------|--|-------|---------------|
| Defense              |  |       | February 2000 |
| 3. INSTALLATIO       | ON AND LOCATION                            |       |               |
|                      | Fort George G. Meade, MD                   |       |               |
| 4. PROJECT TITLE     | 5.   | PROJE | CT NUMBER     |
|                      | Critical Utility Control, Phase II         |       | 4004          |

Proprietary items may be used where necessary to maintain compatibility of existing systems and to reduce maintenance and future repair expense.

11. Requirements: N/A

Project: This project will provide the capability to monitor and control low voltage substations that directly support several key Agency operational areas.

Requirements: This project is required to increase the reliability and availability of utility systems supporting critical mission functions in key operational areas within the Headquarters complex.

Current Situation: The aging nature of our facilities, combined with the increase in complexity of our utility systems, has produced increased system outages. It is highly probable that without remote monitoring and controlling capability, that mission related systems will experience an ever increasing number of outages - both in duration and frequency. As the utility systems are currently configured, they are not capable of providing reliable support to mission systems. When a problem occurs, personnel must make a field analysis of the situation and physically throw switches, breakers, etc. Little remote analysis can be done and no remote operational capability exists.

Impact If Not Provided: It is highly probable that without Critical Utility Control Phase II, critical mission utilities shall continue to experience a decease in utility systems reliability and availability which support key mission operations. The SCADA load shed scheme will not be fully implemented and capability to distribute site-generated power will be compromised. The Facilities Control Center will not have real time access to data concerning the status of electric utilities supporting critical mission elements.

Related Projects/Systems: This project is the third in a series of projects. The first two projects are FY 1995 Critical Substation Control and FY 1996 Critical Utility Control, Phase I.

Point of Contact: Leonadr D. Zellers, (301) 688-6550

| 1. Component           | FY 2001 MILITARY                       | CONSTRUCTION              | J PRAIFCT D     | <b>ЛТЛ</b> | 2. Date       |
|------------------------|--|---------------------------|-----------------|------------|---------------|
| NSA/CSS                | F1 20 <u>01 WILLIAMI</u>               | CONSTRUCTION              | (TROJECT D      | AIA        | February 2000 |
| Defense                |  |                           |                 |            | Teordary 2000 |
| 3. INSTALLATIO         | ON AND LOCATION                        |                           |                 |            |               |
|                        | Fort (                                 | George G. Meade, N        | MD              |            |               |
| 4. PROJECT TITLE       |  | scorge G. Meade, N        |                 | 5. PROJ    | ECT NUMBER    |
|                        |  |                           |                 |            |               |
|                        | Critical Utilities Cont                | rol, Phase II             |                 |            | 4004          |
| SUPPLEMENT             | DATA                                   |                           |                 |            |               |
| A. DESIGN D            | ATA (Estimated)                        |                           |                 |            |               |
| 1. STATUS              |  |                           |                 |            |               |
| a. Da                  | te Design Started                      |                           | Aug 98          |            |               |
| b. Pe                  | rcent Completed as of January 1,       | 1999                      | 35%             |            |               |
| c. Pe                  | rcent Completed as of October 1,       | 1999                      | 65%             |            |               |
| d. Da                  | te Design Completed                    |                           | Apr 00          |            |               |
| 2. BASIS               |  |                           |                 |            |               |
| a. S                   | tandard or Definite Design             | Yes                       | NoX             |            |               |
| b. V                   | Where Design Was Most Recentl          | y Used                    | N/A             |            |               |
| 3. COST (\$000         | ) = c = a + b = d + e                  |                           | 70              |            |               |
|                        |  |                           |                 |            |               |
|                        | Production of Plans and Specifica      | tions                     | 50              |            |               |
|                        | All Other Design Costs                 |                           | 20              |            |               |
|                        | Total<br>Contract                      |                           | 70              |            |               |
|                        | n-house                                |                           |                 |            |               |
| C. 1                   | n-nouse                                |                           |                 |            |               |
| 4. CONSTRUC            | TION START                             |                           | Feb 2001        |            |               |
| B. EQUIPME<br>APPROPR  | NT ASSOCIATED WITH THIS PI<br>IATIONS: | ROJECT WHICH WILL E       | BE PROVIDED FRO | OM OTHE    | R             |
|                        | <b>.</b>                               | Fiscal Year               | ~               |            |               |
| Equipment Nomenclature | Procuring <u>Appropriation</u>         | Appropriated or Requested | Cost<br>(\$000) |            |               |
|                        | <u>rippropriation</u>                  | or requesteu              | ζφοσο           |            |               |
| N/A                    |  |                           |                 |            |               |

Point of Contact: Leonard D. Zellers, (301) 688-6550

| 1. Component NSA/CSS                          | FY 20 <u>01 MILITARY CONSTRUCTION PROJECT DATA</u> |                  |   |  | 2. DATE      |
|---|--|------------------|---|--|--------------|
| Defense                                       |  |                  |   |  | February2000 |
| 3. INSTALLATION AND LOCATION 4. PROJECT TITLE |  |                  |   |  |              |
| Fort George G. Meade, Maryland Route 32       |  |                  |   |  |              |
| 5 PROGRAM ELEN                                | MENT   | 6. CATEGORY CODE | 7. PROJECT NUMBER 8. PROJECT COST (\$000) |  |              |
| 0301011                                       | lG   | 851              | 8669                                      |  | 3,459        |
| 9. COST ESTIMATES                             |  |                  |   |  |              |

| ITEM                       | U/M | QUANTITY | UNIT COST | COST (\$000) |
|----------------------------|-----|----------|-----------|--------------|
| Primary Work:              | LS  |          |           | 1,572        |
| Access Road                |     |          |           | (400)        |
| Upgrade Canine/Samford     |     |          |           | (1,172)      |
| Supporting Infrastructure: | LS  |          |           | 1,700        |
| Utility Ductbank           |     |          |           | (1,000)      |
| Pedestrian Bridge          |     |          |           | (300)        |
| Stormwater Management      |     |          |           | (400)        |
| Subtotal                   |     |          |           | 3,272        |
| SIOH (5.7%)                |     |          |           | 187          |
| Total Contract Cost        |     |          |           | 3,459        |
| Total Request              |     |          |           | 3,459        |
|                            |     |          |           |              |

## 10. DESCRIPTION OF PROPOSED CONSTRUCTION

This project is directly related to the Maryland State Highway Administration (MSHA) Route 32 Project and National Security Agency (NSA) Perimeter Security Anti-Terrorism (PSAT) Program. The project will upgrade Canine Road from the Canine/Samford interchange to Emory Road. This upgrade is necessary to support new traffic flows that will be created within the NSA campus. A new pedestrian bridge spanning over Canine Road will be constructed to provide safe access to VCC # 1 from the N-10 Parking Lot due to increased vehicular traffic expected. Additional support construction items include Agency contributions to MSHA for stormwater management structure(s), construction of a new road for vehicular access to the National Cryptologic Museum and National Vigilance Park public attractions, and a new utility ductbank to reroute communications utilities out of the planned roadwork construction path.

All necessary revisions to the existing roadway systems and utilities to accommodate the work will be included.

Proprietary items will be used where necessary to maintain compatibility of roadway systems and to reduce maintenance and future repair expense.

Date FY 2001 MILITARY CONSTRUCTION PROJECT DATA NSA/CSS Defense February 2000

3. INSTALLATION AND LOCATION

## Fort George G. Meade, MD

4. PROJECT TITLE PROJECT NUMBER Route 32 8669

11. Requirements: N/A

Project: This project will provide necessary capability to make the SHA Route 32 and Agency PSAT Programs complete and operational to fulfil Agency operations.

Requirements: This project is required to support key infrastructure functions within the Headquarters complex.

<u>Current Situation</u>: Route 32 is currently exposing vehicular traffic to unsafe at-grade intersections. The MD Route 32 project has been carefully planned by MSHA in conjunction with Agency needs. The Agency is partnering with MSHA and Corps of Engineers to ensure complete project success.

Impact if not provided: The Route 32 Upgrade Project being executed by the MSHA will not meet the Agency's safety and security needs.

Related Projects/Systems: This project is directly related to the Maryland State Highway Administration Route 32 Project and NSA's Perimeter Security Anti-Terrorism Program.

Point of Contact: Leonard D. Zellers, (301) 688-6550

| 1. Component           | FY 20 <u>01 MILITARY</u>  | CONSTRUCTION       | PROJECT DATA         | 2. Date       |
|------------------------|---|--------------------|----------------------|---------------|
| NSA/CSS                | 0 <u>0</u>  |                    | 1110020121111        | February 2000 |
| Defense                |   |                    |                      |               |
| 3. INSTALLATIO         | ON AND LOCATION   |                    |                      |               |
|                        |   |                    |                      |               |
|                        | Fort (  | George G. Meade, N | <b>ID</b>            |               |
| 4. PROJECT TITLE       | L   |                    | 5. PRO               | JECT NUMBER   |
|                        | Route 32  |                    |                      | 8669          |
| SUPPLEMENT             |   |                    |                      | 0007          |
| A DESIGN D             | ATA (Estimated)   |                    |                      |               |
|                        | (1171 (Estimated)   |                    |                      |               |
| 1. STATUS              | 4- D: C44- 1  |                    | D 00                 |               |
|                        | te Design Started   | 2000               | Dec 99<br>0%         |               |
|                        | rcent Completed as of January 1, rcent Completed as of October 1, |                    | 100%                 |               |
|                        | te Design Completed   | 2000               | Jul 00               |               |
| u. Da                  | te Design Completed   |                    | <u>Jul 00</u>        |               |
| 2. BASIS               |   |                    |                      |               |
|                        | andard or Definite Design   |                    | NoX                  |               |
| b. <b>\</b>            | Where Design Was Most Recent                                      | y Used             | N/A                  |               |
|                        |   |                    |                      |               |
| 3. COST (\$000)        | 0 = c = a + b = d + e   |                    | 350                  |               |
| a. P                   | roduction of Plans and Specifica                                  | tions              | 222                  |               |
| b. <i>A</i>            | All Other Design Costs  |                    | 128                  |               |
| с. Т                   | `otal   |                    | 350                  |               |
| d. C                   | Contract  |                    | 350                  |               |
| e. I                   | n-house   |                    | 0                    |               |
| 4. CONSTRUC            | ΓΙΟΝ START  |                    | Nov 2000             |               |
|                        |   |                    |                      | ZD.           |
| B. EQUIPME<br>APPROPRI | NT ASSOCIATED WITH THIS PI<br>IATIONS:                            | OJECT WHICH WILL B | E PKOVIDED FROM OTHI | EK            |
|                        |   | Fiscal Year        |                      |               |
| Equipment              | Procuring   | Appropriated       | Cost                 |               |
| <u>Nomenclature</u>    | <u>Appropriation</u>  | or Requested       | <u>(\$000)</u>       |               |

N/A

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